

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings of claims in the application. Please amend/cancel/add the claims as follows:

Claim 1 (Currently Amended): A modular microfluidic system comprising at least one base board having a plurality of fluidly linked fluid supply apertures on one or both sides thereof, a plurality of microfluidic modules adapted to be detachably attached to the base board, each having one or more fluid inlets and/or outlets, and a plurality of fluid couplings to effect releasable fluid-tight connection between a microfluidic module and ~~a~~ the at least one base board via a supply aperture on the at least one base board and an inlet/outlet on the microfluidic module, ~~a~~ said fluid coupling comprising a ~~channel means~~ ferrule insertable into a suitably shaped recess in such an inlet/outlet/aperture to effect a fluid ~~tight-tight~~ communication therebetween, said ferrule being resilient at least in the region of fluid-tight connection.

Claim 2 (Currently Amended): A modular microfluidic system in accordance with claim 1 ~~wherein the channel means comprises a rigid tubular element, with any recess into which such a tubular element~~ said ferrule is to be received ~~being~~ is shaped accordingly.

Claim 3 (Currently Amended): A modular microfluidic system in accordance with claim 2 wherein the ~~tubular element comprises a projecting ferrule~~ is integral with, and projecting projects from, a first aperture comprising either a fluid supply aperture in the base board or an inlet/outlet in ~~the a~~ a microfluidic module, and said ferrule is adapted to be received in a recess comprised as a second aperture, correspondingly either an inlet/outlet in ~~the a~~ a microfluidic module or a supply aperture in the base board.

Claim 4 (Previously Amended): A modular microfluidic system in accordance with claim 1 wherein the ferrule projects generally perpendicularly from a generally planar surface of the base board, to effect a fluid connection between a base board and module adapted to lie generally parallel when connected.

Claim 5 (Cancelled)

Claim 6 (Previously Amended): A modular microfluidic system in accordance with claim 1 further comprising at least one fluid source aperture fluidly linked thereto to supply source fluid to the system, and/or at least one fluid output aperture fluidly linked thereto to output fluid from the system.

Claim 7 (Previously Amended): A modular microfluidic system in accordance with claim 1 wherein the base board is constructed with a pattern of interconnecting microfluidic channels to provide a plurality of fluid channels and/or chambers in use linking in fluid communication at least some of the supply apertures to each other and/or to the source aperture.

Claim 8 (Cancelled)

Claim 9 (Cancelled)

Claim 10 (Currently Amended): A modular microfluidic system in accordance with claim 1 wherein each microfluidic module has a generally planar construction to be incorporated upon a generally planar ~~baseboard~~base board.

Claim 11 (Currently Amended): A modular microfluidic system in accordance with claim 1 wherein different parts of ~~boards~~the at least one base board and/or microfluidic modules are fabricated from different materials to ~~provide different functional requirements regarding transparency, structural strength, chemical resistance and the like.~~

Claim 12 (Cancelled)

Claim 13 (Currently Amended): A modular microfluidic system in accordance with claim 1 wherein a connecting means ~~are~~is provided to hold the assembly together in use and assist in maintenance of a fluid-tight connection by urging ~~coupling ferrules~~ and ~~aperture~~corresponding recesses into closer association and retaining thereat with a suitable urging force.

Claim 14 (Cancelled)

Claim 15 (Cancelled)

Claim 16 (Currently Amended): A modular microfluidic system in accordance with claim 1 wherein the ~~tubular fluid coupling is metallic tubular channel coupling such as ferrule~~ is a metallic ferrule to effect ~~effect~~ affect an electrical as well as a fluid interconnection.

Claim 17 (Cancelled)

Claim 18 (Cancelled)

Claim 19 (Currently Amended): A method of providing a microfluidic system as a modular assembly comprising the steps of:

providing at least one base board having a plurality of fluidly linked fluid supply apertures on one or both sides thereof and a plurality of fluid channels and/or chambers linking in fluid communication at least some of the supply apertures;

providing a plurality of microfluidic modules, each having one or more fluid inlets and/or outlets and at least one fluid channel or chamber in fluid communication therebetween;

providing a fluid coupling comprising a ~~channel means~~ferrule insertable into a suitably shaped recess in such an inlet/outlet/aperture to effect a fluid tight communication therebetween-; said ferrule being resilient at least in the region of fluid-tight connection;

connecting the microfluidic modules to the at least one base board via the flexibly resilient ferrule ~~fluid couplings~~ to effect releasable fluid-tight connection therebetween via a supply aperture on the at least one base board and an inlet/outlet on the microfluidic module; such that the fluid channels or chambers within the microfluidic modules act in co-operation with

fluid channels or chambers in the at least one baseboard~~base board~~ to complete a desired microfluidic circuit.

Claim 20 (New): A modular microfluidic system in accordance with claim 1, wherein the ferrule is a PTFE tube.